

WHAT IS CLAIMED IS:

1. A protection circuit for battery charge, comprising:

a battery state monitoring circuit for monitoring a battery state of a secondary battery to output a battery state detection signal;

an oscillation circuit for, in response to the battery state detection signal, outputting an output signal (CLK);

a frequency division circuit for, in response to the output signal (CLK) from the oscillation circuit, outputting a frequency-divided signal;

a logic circuit for, in response to the signal from the frequency division circuit, outputting a signal;

a first terminal through which the output signal (CLK) from the oscillation circuit is inputted;

a second terminal through which the signal from the logic circuit is inputted; and

an external test circuit connected to the first terminal and the second terminal,

wherein the first terminal is connected to an input of the oscillation circuit.

2. A protection circuit for battery charge according to claim 1, further comprising a cut-off circuit for cutting off the output signal (CLK) from the oscillation circuit, which is provided between

the oscillation circuit and the first terminal.

3. A protection circuit for battery charge, in which at a time of initial measurement, an oscillation state of the oscillation circuit which is controlled based on the battery state detection signal is monitored through the first terminal; and at a time of secondary measurement, the output signal (CLK) from the oscillation circuit is cut off by the cut-off circuit, and an oscillation frequency of the oscillation circuit is accelerated with a signal inputted through the first terminal to shorten a delay time in the frequency division circuit, to thereby shorten a measurement time required to confirm operation states and functions of the battery state monitoring circuit, the oscillation circuit, the frequency division circuit or a logic circuit through the second terminal.

4. A power supply apparatus, comprising the protection circuit for battery charge according to claim 1.

5. A power supply apparatus, comprising the protection circuit for battery charge according to claim 2.

6. A power supply apparatus, comprising the protection circuit for battery charge according to claim 3.